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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

THOMSON, WILLIAM D

ART UNIT PAPER NUMBER

2123

DATE MAILED: 09/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/865,999

Applicant(s)

ALVAREZ ET AL.

Examiner

William D. Thomson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-21 have been presented for examination.
2. Claims 1-21 have been examined and rejected.

Information Disclosure Statement

3. The listing of references in the specification is not a proper information disclosure statement. 37 C.F.R. 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and M.P.E.P. § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

4. Applicant has not provided a formal information disclosure statement (IDS) in the case. Though a prior art search is not required, disclosure of known relevant prior art that may go to the material patentability of the claimed invention is required. For example, it is noted that three separate articles authored by the inventor were not provided and only uncovered during the prior art search by the examiner. Examiner respectfully reminds Applicant of his duty to disclose. Further, a number of articles are referenced in each of these publications, authored or co-authored by the inventor(s), that appear to be material to the patentability of the present claimed invention. Moreover, any reference(s) that has been incorporated into the present application and should be included as well. In response to this first Office Action, Applicant should

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provide a copy of each of these articles as they pertain to the instant invention and properly list them in an IDS form with an appropriate statement. These must be listed with publication dates the formal IDS document, namely a P.T.O 1449. To make the issues clear, this is not a request under 37 C.F.R. 1.105. However, if the Applicant does not comply a requirement to produce the documents under 37 C.F.R. 1.105 will be forthcoming.

Specification

5. The abstract is objected to as not comporting to standard practice as follows:

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Applicant is further reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should

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include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

Correction is required.

6. The specification is objected to for the following reasons:

a. The spacing of the lines of the specification is such as to make reading and entry of amendments difficult. New application papers with lines double spaced on good quality paper are required.

b. The apparent attempt to incorporate subject matter into this application by reference to Lee and Katz, ACM 1993 is improper because it appears to constitute essential matter for the claims.

c. The phrase, "supra", for example on page 16, lines 3 and 4, provides an improper reference and incorporation of the subject matter into the specification, and is without a reasonable level of direction as to what matter the Applicant is referring.

d. The citations to sections of the M.P.E.P. and U.S.C. 112 should be removed from the specification.

Claim Rejections - 35 U.S.C. § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 1-21 are rejected under 35 U.S.C. 101 because the claimed invention is an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application producing a concrete, useful, *and* tangible result to form the basis of statutory subject matter under this section of the law. Claims 1-13 are disembodied method claims reciting an abstract idea or algorithm, which may be mental steps. Claims 14-18, are direct to "computer memory" with code for the abstract idea or algorithm. Claims 18-20 are "method of doing business" which then recite an abstract idea or algorithm. The Examiner used the following analysis in determining whether or not the claims met the requirements of 35 U.S.C. § 101 specific to concrete, useful, *and* tangible:

"Useful" - The Supreme Court in *Diamond v. Diehr* requires that the examiner look at the claimed invention as a whole and compare any asserted utility with the claimed invention to determine whether the asserted utility is accomplished. This must be a well established utility. In the context of the present invention, looking to the teachings within the specification and related state of the art, it is believed that the present invention has a well established utility directed to predictive performance systems useful in a number of fields but the claims do not expressly specify how it is applied to any one specific use. Usefulness under the patent eligibility standard requires

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significant functionality to be present to satisfy the useful result aspect of the practical application requirement. See *Arrhythmia*, 958 F.2d at 1057, 22 USPQ2d at 1036

"Tangible" - Applying *In re Warmerdam*, 33 F.3d 1354, 31 USPQ2d 1754 (Fed. Cir. 1994), the examiner will determine whether there is simply a mathematical construct claimed. If so, the claim involves no more than a manipulation of an abstract idea and therefore, is nonstatutory under 35 U.S.C. §101. A process that consists solely of the manipulation of an abstract idea is not concrete or tangible. In the instant case the claims are directed to an abstract methodology or algorithm for a performability and failure scenarios which is not specifically grounded in the technological arts.

"Concrete" - Another consideration is whether the invention produces a "concrete" result. Usually, this question arises when a result cannot be assured. The invention can operate as intended without undue experimentation will result a some result which can be concrete or guaranteed.

The recited invention is not specifically in the technological arts, it provides nothing more than abstract method or algorithm for predictive performability with failure scenarios. The claimed invention as a whole must accomplish a practical application. That is, it must produce a "useful, concrete and tangible result." *State Street*, 149 F.3d at 1373, 47 USPQ2d at 1601-02. The purpose of this requirement is to limit patent protection to inventions that possess a certain level of "real world" value, as opposed to subject matter that represents nothing more than an idea or concept, or is simply a starting point for future investigation or research (*Brenner v. Manson*, 383 U.S. 519, 528-36, 148 USPQ 689, 693-96); *In re Ziegler*, 992, F.2d 1197, 1200-03, 26 USPQ2d

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1600, 1603-06 (Fed. Cir. 1993)); Fiers v. Revel, 984 F.2d at 1169, 25 USPQ2d at 1605; Amgen, 927 F.2d at 1206, 18 USPQ2d at 1021.

Moreover, to the issue of the abstraction the claims do not embody a transformation of the information and is disembodied from functional interactions between substantive real world processes resulting in transformations and useful post process, *In re Sarker*. That is they do not transform physical subject matter to a different state not thing using physical steps as required by a "process". These are theoretical operations on data which are not embodied in any physical structure of physical transformation steps. State Street and A.T&T.

Where a claim is broad enough to read on both statutory subject matter (machine implementation or physical transformation of physical subject matter) as well as nonstatutory subject matter (an abstract idea), the claims should be rejected since the claims may be amended, in some cases to overcome the rejections, however the instant claims as presented must be delimited by express terms rather than by claim interpretation or inferences based upon probable teachings in the specification and associated incorporation of essential matter. In re Lintner.

In the instant case no prior art has been asserted, since Applicant may be able to amend the claims to overcome the rejection under U.S.C. 101, however, must also note the cited prior art prior to providing any future amendments.

Conclusion

8. The prior art made of record, see PTO 892, and not relied upon is considered pertinent to Applicant's disclosure, careful consideration must be given prior to

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Applicant's response to this Office Action. Applicant is reminded that they must consider all cited art under Rule 111(c) when amending the claims.

Contact Information

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William D. Thomson whose telephone number is 703-305-0022. The examiner can normally be reached on 8:30-3:30 Tuesday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Teska can be reached on 703-305-9704. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


William Thomson
Primary Examiner
T.C. 2100
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